

similarly furnished. It is closely affined to *Camptonyx*, being intermediate between that genus and *Succinea*. The two last-named shells æstivate attached to rocks. I am inclined to think it possible that links yet remain to be discovered between all the siphon- and tube-bearing genera, in which the peculiar organization, common under various modifications to all of them, is more clearly adapted to the animal's mode of existence than in the cases mentioned. It is extremely probable that such links may have existed and have become extinct. We can on this hypothesis easily conceive that their living representatives or, on the theory of Darwin, their modified descendents possess the organization, in a more or less perfect condition, which was essential to their predecessors, but is no longer equally necessary to their own existence, and that, in short, the various apertural slits and imperforate tubes of *Pterocyclos*, *Pupina*, *Alycæus*, &c., must be regarded in the same light as rudimentary organs. By this hypothesis, also, we can understand the appearance of the more perfect conditions for communication between the atmosphere and the lung-chamber of the animal in widely separated forms, while others closely allied to each of them are more or less deficient in all traces of a similar organization, and the occurrence of a gradual passage from tube-bearing genera to others totally destitute of any modification of the peristome or suture is perfectly natural. The tube of *Spiraculum* becomes an incision in the peristome in *Pterocyclos*, the Burmese forms of which are closely allied to species of *Cyclophorus* like *C. calyx*, Bens., which have a thickened operculum and a minute rudimentary wing-shaped projection of the outer lip, close to the suture; and from these forms, again, there is a passage to discoid species, like *C. stenostomus*, Sow., with perfect peristomes. In the same way we may pass from *Raphaulus*, through *Pupinella* and *Pupina*, to *Registoma*, and finally to *Callia*, and through *Cataulus* to *Megalomastoma*. To the subject of the affinities of these various genera, however, and especially of the aberrant *Alycæus*, I hope to refer in a future communication.

Bombay, May 1863.

BIBLIOGRAPHICAL NOTICES.

A List of the Birds of Europe. By Professor J. H. BLASIUS. Reprinted from the German, with the author's Corrections. Norwich: Matchett & Stevenson. London: Trübner & Co. 1862.

PROFESSOR J. H. BLASIUS, of Brunswick, is well known to the scientific world as one of our very highest authorities on European Vertebrates. His Manual of the Mammals of Central Europe is certainly the best of modern works on this subject; and the second volume of

the same series, in which he proposes to treat of the Birds, has long been anxiously expected by naturalists who devote their attention to this class of animals. It is, we presume, a *résumé* of the species, as arranged in this forthcoming work, that Prof. Blasius has lately printed in Germany "for his private use." In the present 'List,' therefore, which has been "reprinted from the German original," and specially amended by the author for the English edition, we have the arrangement likely to be followed in Prof. Blasius's long-expected volume.

So many changes take place every year in the nomenclature and arrangement of Birds, even of those that are found in the circumscribed area of Europe, that a new list of species is from time to time very necessary to the naturalist. We are, therefore, much indebted to Mr. Alfred Newton for supplying this convenient and well-arranged Catalogue, which, there is little doubt, will fulfil the translator's expectations of being "of service to those who are interested in the study of European ornithology." The total number of *species* "breeding in or regularly visiting Europe," as recognized in Prof. Blasius's present list, is 420. Those which have only "strayed in accidentally, and have for the most part been observed but once," are inserted in their proper places in the list, but are distinguished by their names being printed in italics, and by bracketed numbers. This category includes 103 species, raising the total number of authentic *species* (according to Prof. Blasius's views of that much-disputed term) which occur within the limits of Europe to 523. Besides these, Prof. Blasius enumerates 55 "varieties commonly considered as species," and amongst these we observe are located the British forms *Motacilla Yarrellii*, *Budytes flaveolus*, *Tetrao scoticus*, &c., which Prof. Blasius considers inseparable specifically from their Continental prototypes *Motacilla alba*, *Budytes flava*, and *Tetrao albus*, &c. Ornithologists may or may not agree with Prof. Blasius in these views, but it is quite certain that the differences which separate these nearly allied forms are not equal in amount to those that are found between species (such as *Turdus musicus* and *Turdus viscivorus*) universally recognized as distinct, and that the judgment of so great an authority as Prof. Blasius on the subject must be received with respect. Finally, the species that have been asserted to occur in Europe, "on doubtful authority," are included in the catalogue, with notes of interrogation appended, and a reference is given to the works wherein they are noticed as having been obtained within its limits. In this part of the list only Mr. Newton has introduced some additional matter, by adding, for the information of his fellow-countrymen, a few references, "chiefly relating to rarer captures in England."

On the whole, we may state that, in spite of certain peculiarities in the nomenclature (with which we cannot agree), we consider this to be the most complete and most satisfactory of all the lists of the Birds of Europe hitherto published.